

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter covers about research findings and discussion that include data of research findings, hypothesis testing, the result of normality and homogeneity testing, and discussion.

A. The Description of Data

In this chapter, the researcher presented the data of mean score in vocabulary between students' taught by Wattpad Application and those taught by using conventional method. The participants of the research consisted of two classes, they were X IPA 2 as Experimental class and X IPA 4 as Control class. The purpose of the research was to know the effectiveness of using Wattpad Application on the first grade students' vocabulary mastery at SMAN 1 Karanganyar. The data were collected from students' score in pre-test and post-test of the two classes. Then, to determine the significance different whether using Wattpad Application was effective or not, the researcher did not use individual scores for comparison. However, it used the results of class scores or mean of the scores in vocabulary. The data were presented as follow:

1. The Data of Experimental Class

The table below showed the students' score of pre-test and post – test of Experimental class that consisted of 36 students' of the first grade at SMAN 1 Karanganyar. The test was multiple choices consisted of 20 items

about part of speech. The students' score of pre-test and post-test can be seen on Table 4.1 as follows:

Table 4.1 The Students' Scores of Experimental Class (Using Wattpad Application)

No.	Student's Name	Pre – Test	Post – Test
1.	AAT	45	70
2.	AL	50	60
3.	AWS	55	55
4.	ANL	45	60
5.	ARA	60	75
6.	AHK	60	85
7.	BP	35	60
8.	DEAT	50	70
9.	DOA	60	75
10.	DD	65	85
11.	DJF	30	40
12.	DT	45	70
13.	ETW	45	50
14.	FCAP	30	45

15.	GTWJ	60	70
16.	HPP	35	50
17.	IAZ	65	60
18.	KT	45	70
19.	MLW	60	85
20.	MAS	25	30
21.	NDA	40	60
22.	NMY	40	60
23.	NJR	25	40
24.	NH	60	55
25.	OFER	65	75
26.	PP	55	60
27.	RDMP	60	55
28.	RAD	55	60
29.	SNDN	55	65
30.	SHS	40	45
31.	SN	60	55
32.	TD	65	65

33.	UH	70	65
34.	VSA	55	75
35.	ZPI	60	75
36.	ZMM	50	60

As stated above, the table showed the students' individual scores. In this research the researcher did not use individual scores for comparison the result, but used the results of class scores or mean of the scores in vocabulary. To know the result of class scores in pre-test the researcher used SPSS 16.0 for windows to know the students' vocabulary achievement at Experimental class, especially in their basic vocabulary.

The result can be seen on the Table 4.2 below:

Table 4.2 Descriptive Statistic Pre-test of Experimental Class

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Pre	36	25	70	1820	50.56	12.234
Valid N (listwise)	36					

According to the result of pre-test from the table above, it shown that the sum of data was 1820. The lowest score of pre-test was 25 and the highest score was 70. The mean of data was 50.56. After the researcher gave the treatment by

using story from Wattpad Application in teaching vocabulary for two weeks, the researcher administered post-test. The data in the post-test is showed in the Table 4.3 below:

Table 4.3 Descriptive Statistic Post-test of Experimental Class

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Post	36	60	95	2785	77.36	11.370
Valid N (listwise)	36					

According to the result of post-test from the table above, it shown that the sum of data was 2785. The lowest score of post-test was 60 and the highest score was 95. The mean of data was 77.36

Based on descriptive statistic pre-test and post-test of Experimental class, it shown that the *Sum* of data pre-test was 1820 and the *Sum* of data post-test was 2785. *Mean* of pre-test score was 50.56 and the *Mean* of post-test score was 77.36. Then, it can be concluded that the gained score between pre-test and post-test was 965 and the gained of mean score was 26.8.

2. The Data of Controlled Class

The table below showed the students' score of pre-test and post - test of Control class that consisted of 36 students of first grade of SMAN 1 Karanganyar. The test was multiple choices consisted 20 items about part of

speech. Students' score of pre-test and post-test can be seen on Table 4.4 as follows:

Table 4.4 The Students' Scores of Controlled Class (Without Using Wattpad Application)

No.	Student's Name	Pre – Test	Post – Test
1.	APMS	45	40
2.	AGU	50	45
3.	AFHW	45	50
4.	ASW	40	40
5.	ALR	50	45
6.	ANAM	50	50
7.	DFI	45	50
8.	DPY	35	45
9.	DR	45	30
10.	DSA	30	40
11.	DAK	50	30
12.	DP	45	40
13.	EAB	40	30
14.	FIP	50	50

15.	FHM	55	40
16.	HAK	45	40
17.	IIP	40	50
18.	IFY	60	50
19.	ID	50	65
20.	IFL	50	65
21.	LY	50	70
22.	MDKP	55	60
23.	MDA	35	50
24.	NT	60	40
25.	NFBP	50	60
26.	NAA	55	50
27.	PTC	30	50
28.	PLM	35	50
29.	RAPF	40	55
30.	RAIP	60	45
31.	RTS	35	50
32.	REW	25	40

33.	SEA	30	50
34.	SKN	30	55
35.	TBS	35	55
36.	TAA	30	45

As stated above, the table showed the students' individual scores. In this research the researcher did not use individual scores for comparison the result, but it used the results of class scores or mean of the scores in vocabulary. To know the results of class score in pre-test the researcher used SPSS 16.0 for windows to know the students' vocabulary achievement at Control class. The result can be seen on the Table 4.5 below:

Table 4.5 Descriptive Statistic Pre-test of Controlled Class

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Pre	36	25	60	1575	43.75	9.664
Valid N (listwise)	36					

According to the result of pre-test from the table above, it shown that the sum of data was 1575. The lowest score of pre-test was 25 and the highest score was 60. The mean of data was 43.75. And after the

researcher teaching vocabulary using conventional method, the researcher gave the students post-test scores. The data in the post-test were shown on the Table 4.6 below:

Table 4.6 Descriptive Statistic Post-test of Controlled Class

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Post	36	50	85	2130	59.17	9.063
Valid N (listwise)	36					

According to the result of post-test from the table above, it shown that the sum of data was 2130. The lowest score of post-test was 30 and the highest score was 85. The mean of data was 59.17.

Based on descriptive statistic pre-test and post-test of Control class, it shown the *Sum* of data pre – test was 1575 and the *Sum* of data post – test was 2130. *Mean* of pre-test score was 43.75 and the *Mean* of post-test score was 59.17. Then, it can be conclude that the gained score between pre-test and post-test was 555 and the gained of mean score was 15.42.

B. The Result of Normality and Homogeneity Testing

1. The Result of Normality Testing

Normality testing is conducted to determine whether the gained data was normal distribution or not. The researcher used SPSS 16.0 *One Sample Kolmogorov-Smirnov test* by the value of significance (α) = 0.05.

The result can be seen in table below:

Table 4.7 The Result of Normality Testing

One-Sample Kolmogorov-Smirnov Test

		pre	post	Unstandardized Residual
N		36	36	36
Normal Parameters ^a	Mean	50.56	77.36	.0000000
	Std. Deviation	12.234	11.370	10.67605136
Most Extreme Differences	Absolute	.170	.138	.118
	Positive	.091	.138	.075
	Negative	-.170	-.117	-.118
Kolmogorov-Smirnov Z		1.017	.827	.706
Asymp. Sig. (2-tailed)		.252	.501	.702

a. Test distribution is Normal.

a. H_0 : Data is in normal distribution

b. H_1 : Data is not in normal distribution

The standard significant of education is 0.05 ($\alpha = 5\%$). To determine data was normal distribution or not it can be seen from the result of data normality testing. Based on the output from SPSS above is known that the significance value from pre-test was 0.252 and from the post-test was 0.501. Both value from pre-test and post-test were bigger than 0.05.

The sig/p value on pre-test is 0.252 and it is bigger than 0.05 ($0.252 > 0.05$). It means that H_0 is accepted and H_1 rejected, so the data is in normal distribution. Then, for post-test score value of sig/p is 0.501 and that is bigger than 0.05 ($0.501 > 0.05$). It also means that H_0 is accepted and H_1 is rejected and the data is in normal distribution. Thus, it can be interpreted that both of data (pre-test and post-test score) are in normal distribution.

2. The Result of Homogeneity Testing

Homogeneity testing is conducted to know whether the gained data has a homogeneous variance or not. To know the homogeneity, the researcher used *Test of Homogeneity of Variances* with SPSS 16.0 by the value of significance (α) = 0.050. The result can be seen below:

Table 4.8 The Result of Homogeneity Testing

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
3.663	1	70	.060

- a. H_0 : Data is homogeny
- b. H_1 : Data is not homogeny

The standard significant of education is 0.05 ($\alpha = 5\%$). Based on the output from SPSS above is known that the test called homogeny if the significant score more than 0.05. According to the table above, the test is homogen because $0.060 > 0.05$ and it means that H_0 is accepted and H_1 is rejected. So, it can be conclude that students' of X IPA 2 has homogeny of variances.

C. Hypothesis Testing

The hypothesis testing of this study as follow:

1. H_0 (null hypothesis): There is no significant difference mean score in vocabulary of the students taught by using Wattpad Application and those taught by using conventional method of the first grade at SMAN 1 Karangan.
2. H_a (alternative hypothesis): There is significant difference mean score in vocabulary of the students taught by using Wattpad Application and those taught by using conventional method of the first grade at SMAN 1 Karangan.

The hypothesis testing of this study followed the rule as follows:

1. If the significant value is less than 0.05, the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) accepted.
2. If the significant value is more than 0.05, the alternative hypothesis (H_a) is rejected and null hypothesis (H_0) is accepted.

To know whether there were any significance different students' vocabulary achievement between the students' taught by using story from Wattpad Application and those taught by using conventional method, the calculating result should show whether H_0 is rejected meanwhile H_a is accepted. To analyzed data the researcher used SPSS 16 *for windows*, the result can be seen on Table 4.7 below:

Table 4.9 Descriptive Statistic of Post-test in Two Groups

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Control	36	50	85	2130	59.17	9.063
Experimental	36	60	95	2785	77.36	11.370
Valid N (listwise)	36					

Based on the table above, it showed there were two classes, experimental class and control class. Experimental class showed there were 36 students', Mean of score experimental class was 77.36, Standard Deviation for experimental class was 11.370. Meanwhile, in the control class, showed there were 36 students', Mean of score control class was 59.17, Standard Deviation for control class was 9.063.

In addition, to know the significance different score in Experimental and Control class, while used descriptive statistics the researcher also used independent sample T-test. The purpose was to know the effectiveness of Wattpad Application in vocabulary mastery. To analyze the result of t-test

testing the researcher used SPSS 16.0 *for windows*. The result can be seen on Table 4.8 as follow:

Table 4.10 Independent Sample T-test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Score	3.663	.060	7.508	70	.000	18.194	2.423	13.361	23.028	
			7.508	66.687	.000	18.194	2.423	13.357	23.032	

The table of Independent Sample Test showed that the significant value (sig-2 tailed) was 0.000. According to the hypothesis testing rule, if the significant value is less than 0,05, the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) accepted. Meanwhile if the significant value is more than 0.05, the alternative hypothesis (H_a) is rejected and null hypothesis (H_0) is accepted. The significant value (sig-2 tailed) was 0.000 and it was smaller than 0.05 ($0.00 < 0.05$) it means that H_0 was rejected and H_a was accepted.

Thus, it can be interpreted that there was significant difference mean score in vocabulary of the students' taught by using Wattpad Application and those taught by using conventional method. It means that Wattpad Application was effective to teach the students' vocabulary mastery.

D. Discussion

From the research finding above, the data were analyzed with SPSS 16.0 for windows. The students' who were taught by using Wattpad Application made significant improvement, as seen from the mean score of pre-test was 50.56 and the mean score of post-test was 77.36 . The gained of the mean score of experimental class between pre-test and post-test was 26.8. Meanwhile, the students' who were taught by using conventional method did not make significant improvement, as seen from the mean score of pre-test was 43.75, and the mean score of post-test was 59.17. The gained of the mean score of control class between pre-test and post-test was 15.42. Based on the gained score between experimental class and control class, there are significance difference. The gained score of experimental class was 26.8 and the gained score of control class was 15.42. It can be concluded that the gained score of experimental class was higher than control class.

From the explanation above, experimental class has better vocabulary achievement than control class on post-test. Since the research used homogeneous selection to control extraneous variable and the result of homogeneity testing on students' pre-test on previous chapter showed that the students' have homogenous ability on vocabulary mastery. It can

be concluded that Wattpad Application was effective and not affected by extraneous variable.

Based on the research at SMAN 1 Karangasem, it can be inferred that teaching vocabulary by using Wattpad Application was better than using conventional method. Furthermore, the students' who learned vocabulary mastery through Wattpad Application and who taught without Wattpad having such a significant difference that the students' vocabulary scores who were taught by using story from Wattpad Application was higher than those who were not. It can also be concluded that using Wattpad Application was effective to teaching vocabulary.

The use of text in teaching learning process has good implication such as create a welcoming atmosphere, reduce learning stress level, and connect students to content topics. Moreover, using Wattpad Application is more practical and enjoy in which the students can use their own smartphone. The Wattpad Application is included in which served there are many kinds genre of story especially English story. By English story, the students can get many new vocabularies from the application. Because, the application is complete with has interesting story and the students like it, so the students can imagine their feel while read the story. By using this application, the students would be easy to learn.

In the end, based of research and the reasons from Wattpad Application, the use of story especially from Wattpad Application was successful to teach the students' vocabulary mastery. Wattpad provides

many opportunities for students to add their vocabulary. The activities also increased the students' motivation and create a relax atmosphere, so the students did not get bored. Therefore, as Wattpad Application is effective, the English teacher is suggested to use it as one of alternative media in facilitating students to teach their vocabulary mastery.